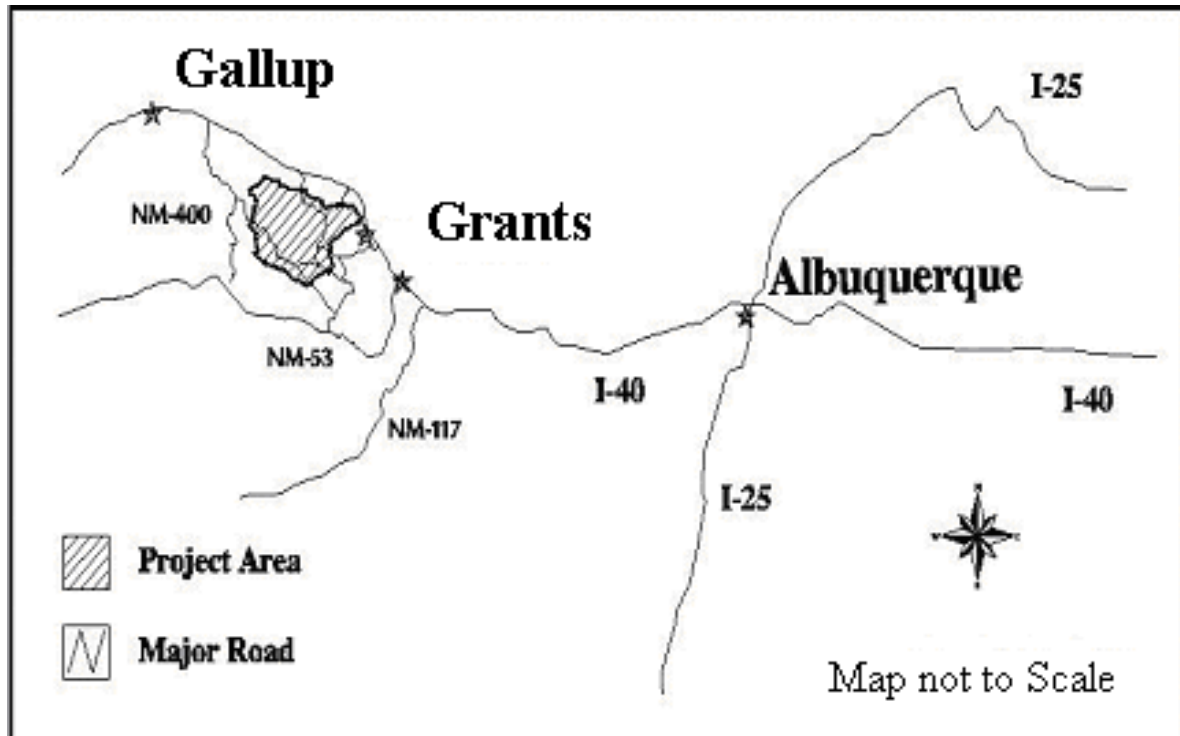


Bluewater Ecosystem Management Project



The Bluewater Ecosystem Management project is located on the Cibola National Forest, Mount Taylor Ranger District, near the community of Grants, New Mexico, in the Zuni Mountains. The project was developed in response to a need to remove high fuel loads that could potentially contribute to a catastrophic wildfire, should a fire occur in this area in the future and improve forest health.

Pine stands were once very open, with an average of 10-50 trees per acre and an extensive herbaceous understory. Based on historical fire occurrence data, this area was burned by low intensity understory fires every 2 to 12 years. These fires would have benefited local tribal communities who used the area by encouraging new plant growth for wildlife forage and providing young plant material for collection. Since the 1950's, fire suppression has reduced the occurrence of wildfire, thus altering the composition of stands and allowing the spread of non-native species.

The lack of frequent, low intensity fires has allowed the forest to become overstocked. The few remaining large diameter trees are surrounded by numerous smaller trees and are at risk of loss from fire and insects. Meadow ecosystems are becoming choked with piñon and juniper trees that shade out grasses and reduce species diversity. Based on data collected in the Bluewater project area, the average tree density now ranges between 110 and 165 trees per acre. Stand mortality is on the rise as drought conditions worsen across much of the southwest and the numerous trees compete for limited water resources.

In order to analyze the situation, the Cibola National Forest evaluated the watershed and established a desired condition to improve overall stand health (Mount Taylor Geographic Area Assessment, 2000). In 2001 the District proposed the Bluewater Ecosystem Management project to reduce fuel loads and thin the forest in order to improve forest health. Stands selected for treatment exhibited characteristics of high fire hazard and were a high fire risk due to the location and frequency of past fire occurrence. This plan was designed to efficiently treat more than 31,000 acres through the use of commercial and pre-commercial thinning and prescribed fire.

The purpose for treating the Bluewater project area was based on findings and recommendations presented in the *Ecological Restoration of Southwestern Ponderosa Pine Ecosystems: A Broad Perspective* (2002). This research addressed the need to reduce tree densities to levels that would allow for frequent low intensity fires to burn through, without causing severe stand mortality. The objective of treating these stands would be to return fire to its natural role at levels commensurate with historical conditions.

By taking these steps to reduce fuel loads within the Bluewater watershed, the Mount Taylor Ranger District will ensure protection of these stands from catastrophic wildfire for decades to come.